Examiner reconsider the rejections in light of the same.

Claims 1-18 are pending in the subject application, of which claims 1 and 16-18 are independent. Claims 1 and 16-18 are amended. Care has been exercised to avoid the introduction of new matter. A Version With Markings To Show Changes Made to the specification and amended claims is included herewith.

Claim Amendments:

Claims 1 and 16-18 are amended pursuant to the Examiner's suggestion in the Advisory Action mailed on October 25, 2002.

Lack of Motivation to Combine the References:

In the Advisory Action mailed on October 25, 2002, the Examiner responded to the arguments set forth in the Amendment filed on October 15, 2002. Specifically, the Examiner repeated his interpretation of the teachings of the references and stated that he had set forth the motivation to combine the references in the Final Office Action mailed on June 12, 2002.

However, the Applicants respectfully note that the Examiner has not yet pointed to any motivation to combine in the references themselves, instead stating only that the motivation exists "to provide proven means to treat neurological and psychiatric disorders so that damaging and potentially fatal conditions associated with neurological and psychiatric disorders such as seizures can be identified and treated before they occur." As argued in the Amendment After Final Rejection, MPEP 2143.01 requires that there must be a suggestion or motivation in the references to make the combination or modification.

Because the Examiner has not yet pointed to any motivation in the references, the Applicants respectfully repeat their request that the Examiner withdraw the rejections thereunder.

Withdrawal of the foregoing rejections is respectfully requested.

There being no further objections or rejections, it is submitted that the application is in

condition for allowance, which action is courteously requested. Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters. If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: 11-12-2002

By: _____
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please AMEND claims 1 AND 16-18. The remaining claims are reprinted, as a convenience to the Examiner, as they presently stand before the U.S. Patent and Trademark Office.

1. (THREE TIMES AMENDED) An arrangement for predicting an abnormality of a dynamic system and for implementing an action opposing the abnormality using [an] a_ continuous information flow that describes a development of a predictability of several future system states, comprising:

a) a measured data pick-up that registers comparison measured data of said system and test measured data of said system;

b) a processor unit, having a neural network that models said system, said processor unit

    (1) training said neural network using said comparison measured data;

    (2) determining a comparison information flow that describes a comparison dynamic of said system using said trained neural network;

    (3) determining a test information flow that describes a test dynamic of said system using said test measured data;

    (4) using said comparison information flow and said test information flow, predicting said abnormality as established when said comparison information flow differs significantly from said test information flow, and predicting said abnormality as not established when said comparison information flow does not significantly differ from said test information flow;

    (5) when said abnormality of the system has been predicted as established, then implementing said action; and

c) an actuator that implements said action.

2. (AS TWICE AMENDED) An arrangement according to claim 1, wherein said processor unit endlessly loops from said determining a comparison information flow to said implementing said action.

3. (AS ONCE AMENDED) Arrangement according to claim 1, wherein said abnormality

is predicted as established when said test information flow is significantly smaller than said comparison information flow.

4. (AS ONCE AMENDED) An arrangement according to claim 3, wherein said action comprises exciting said system with a chaotic signal.

5. (AS ONCE AMENDED) An arrangement according to claim 4, wherein said action comprises supplying noise to said system.

6. (AS ONCE AMENDED) An arrangement according to claim 5, wherein said noise is supplied by a corresponding electrical field.

7. (AS ONCE AMENDED) An arrangement according to claim 6, wherein said electrical field is supplied by at least one electrode.

8. (AS ONCE AMENDED) An arrangement according to claim 5, wherein said noise is supplied by a corresponding magnetic field.

9. (AS ONCE AMENDED) An arrangement according to claim 8, wherein said magnetic field is supplied by at least one electrode.

10. (AS ONCE AMENDED) An arrangement according to claim 1, wherein said abnormality is predicted as established when said test information flow is significantly greater than said comparison information flow.

11. (AS ONCE AMENDED) An arrangement according to claim 10, wherein said action comprises exciting said system with a regular signal.

12. (AS ONCE AMENDED) An arrangement according to claim 11, wherein said regular signal is supplied by an electrical field.

13. (AS ONCE AMENDED) An arrangement according to claim 11, wherein said electrical field is supplied by at least one electrode.

14. (AS ONCE AMENDED) An arrangement according to claim 11, wherein said regular signal is supplied by a magnetic field.

15. (AS ONCE AMENDED) An arrangement according to claim 14, wherein said magnetic field is supplied to said system by at least one electrode.

16. (THREE TIMES AMENDED) A method for predicting an abnormality of a dynamic system and for implementing an action opposing the abnormality using [an] a continuous information flow that describes a development of a predictability of several future system states, comprising:

a)   measuring comparison measured data of said system and test measured data of said system;

b)   determining a neural network that models said system using said comparison measured data;

c)   determining a comparison information flow that describes a comparison dynamic of said system using said neural network;

d)   determining a test information flow that describes a test dynamic of said system using said test measured data;

e)   comparing said comparison information flow to said test information flow using said comparison information flow and said test information flow;

f)   determining said abnormality to be predicted as established when said comparison information flow differs significantly from said test information flow;

g)   determining said abnormality to be predicted as not established when said comparison information flows does not significantly differ from said test information flow; and

h)   implementing said action when said abnormality of said system has been predicted as established.

17. (THREE TIMES AMENDED) A method for predicting an abnormality of a dynamic system using [an] a continuous information flow that describes a development of a predictability of several future system states, comprising the steps of:

a)   measuring comparison measured data of said system and test measured data of said system;

b)   determining a comparison information flow that describes a comparison dynamic of said system using said comparison measured data;

c)   determining a test information flow that describes a test dynamic of said system using said test measured data;

d)   comparing said comparison information flow to said test information flow using said comparison information flow and said test information flow;

e)   determining said abnormality to be predicted as established when said comparison information flow differs significantly from said test information flow;

f)   determining said abnormality to be predicted as not established when said comparison information flow does not significantly differ from said test information flow.

18. (TWICE AMENDED) A method for predicting an abnormality of a dynamic system and for implementing a procedure in response to the abnormality, comprising:

training a neural network to learn the dynamics of a system;

evaluating [an] a continuous information flow received from the system;

predicting an abnormality when the information flow differs significantly from normal state information as determined by the neural network; and

implementing a procedure, if an abnormality is predicted, to prevent or treat the abnormality.